

RELATOR'S FIRST AMENDED COMPLAINT

SUMMARY OF THE ALLEGATIONS

a. submitted false proposals that misrepresented company capabilities, key personnel, and the entities that were to perform and did perform work under certain Government-funded contracts, thereby fraudulently inducing the Government to award

contracts to defendants;

b. submitted false statements and records misrepresenting that efforts under separate Government contracts were not related or duplicative, thereby fraudulently inducing the Government to award contracts to defendants;

c. submitted false reports to the Government describing work that was either not performed or performed in connection with other Government contracts;

d. submitted to the Government false invoices indicating that work performed for commercial clients was reimbursable under Government-funded contracts;

e. falsified employee time records in order to generate false documentation to support false invoices submitted for payment to the Government;

f. submitted to the Government false invoices seeking payment for services that were not rendered;

g. overcharged the Government for materials, equipment, supplies and overhead expenses by duplicating the billing for such items on multiple Government contracts; and

h. submitted false records to the Government for approval and payment under various Government-funded contracts;

i. fraudulently diverted funds procured under Government contracts from their intended purposes to fund defendants' commercial ventures.

3. Defendants' wrongdoing caused the Government millions of dollars in damages.

INTRODUCTION

4. This is an action to recover damages and civil penalties on behalf of the United States of America arising from false or fraudulent claims and statements made or caused to be made by the defendants to the United States in violation of the False Claims Act, 31 U.S.C. §§ 3729, *et seq.* (the “FCA”). The false or fraudulent claims, statements and records at issue involve payments made under Government-funded research contracts awarded by the Department of Defense (“DOD”), U.S. Army (“Army”), U.S. Air Force (“USAF”), Office of the Secretary of Defense (“OSD”), National Aeronautics & Space Administration (“NASA”), and Missile Defense Agency (“MDA,” formerly known as the Ballistic Missile Defense Organization (“BMDO”)).

5. Originally enacted in 1863, the FCA was substantially amended in 1986 by the False Claims Amendments Act. The 1986 amendments enhanced the Government’s ability to recover losses sustained as a result of fraud against the United States.

6. The FCA provides that any person who knowingly submits or causes to submit to the Government a false or fraudulent claim for payment or approval is liable for a civil penalty of up to \$11,000 for each such claim, plus three times the amount of the damages sustained by the Government. The Act empowers private persons having information regarding a false or fraudulent claim against the Government to bring an action on behalf of the Government and to share in any recovery. The complaint must be filed under seal without service on any defendants. The complaint remains under seal while the Government conducts an investigation of the allegations in the complaint and determines whether to join the action.

7. Pursuant to the FCA, relator seeks to recover on behalf of the United States

damages and civil penalties arising from false or fraudulent claims that defendants submitted or caused to be submitted to Government-funded contracts.

8. This action was initially filed by Alfred J. Longhi, Jr. on November 18, 2002. The United States, pursuant to 31 U.S.C. § 3730(b)(2) and through its recent filing of the United States' Complaint, has intervened partially in Longhi's suit. Pursuant to 31 U.S.C. § 3730(c)(3), Longhi has the right to continue the action as to those claims on which the United States has not intervened. By filing this amended complaint, Longhi is pursuing on behalf of the United States and himself those claims on which the United States has not intervened. To the extent that any overlap exists between the claims described in this amended complaint and those alleged in United States' Complaint, the United States' Complaint supersedes this amended complaint.

PARTIES

9. Relator Alfred J. Longhi, Jr. ("Longhi"), is a business professional who has enjoyed a successful career in the field of technical sales for the past 22 years. In 1997, he assisted defendant Munshi in recruiting investors for defendant Lithium Power Technologies, Inc. and personally invested a six-figure sum, obtaining an 8.4% share of the company. In March 2000, buoyed by reports of defendants' successes, Longhi joined Lithium Power Technologies as its Vice President for Sales and Marketing, a position that allowed him to closely observe the company's performance of Government-funded contracts. Longhi brings this action for violations of the FCA on behalf of himself and the United States pursuant to 31 U.S.C. §§ 3730(b)(1) and 3730(c)(3). He has knowledge of the violations and allegations discussed herein.

10. Defendant Lithium Power Technologies, Inc. ("LPT") maintains its principal

place of business in Manvel, Texas. The company seeks to design and manufacture advanced primary and rechargeable lithium-based power sources, electrochemical capacitors and co-polymer film capacitors for commercial and Government applications. LPT is trying to bring lighter, denser power sources to cutting-edge medical and defense applications. The company intends to develop advanced portable power sources, by focusing primarily on batteries (which provide steady energy over long periods of time) and secondarily on capacitors (which provide quick-release bursts of power on demand). To date, the company's commercial ventures have produced insignificant revenues and LPT's existence has been dependent on Government-funded research contracts. The company employs less than 15 people.

11. Defendant Mohammed Zafar A. Munshi ("Munshi") is LPT's majority shareholder, president, chief executive officer, chairman of the board and controlling force. Dr. Munshi is directly responsible for virtually all of the False Claims Act violations that LPT has committed.

JURISDICTION AND VENUE

12. The Court has jurisdiction over the subject matter of this action pursuant to both 28 U.S.C. § 1331 and 31 U.S.C. § 3732, the latter of which specifically confers jurisdiction for actions brought pursuant to 31 U.S.C. § 3730.

13. The Court has personal jurisdiction over the defendants pursuant to 31 U.S.C. § 3732(a) because the False Claims Act authorizes nationwide service of process and defendants have sufficient minimum contacts with the United States.

14. Venue is proper in this district pursuant to 31 U.S.C. § 3732(a) because the defendants can be found, reside or transact, or have transacted business in the Southern

District of Texas and/or acts proscribed by 31 U.S.C. § 3729 occurred in the Southern District of Texas.

ALLEGATIONS

The Contracts at Issue

15. Most of the contracts at issue in this case were awarded to defendants under the federal Small Business Innovation Research Program (“SBIR”) or similar Government-funded programs.

16. The SBIR program was established by Congress in 1982 to provide increased opportunities for small businesses to participate in research and development in order to stimulate technological innovation. The Small Business Administration (“SBA”) is responsible for establishing SBIR governing policy and for overall program monitoring, reporting, and analysis. Federal agencies with R&D budgets exceeding \$100 million are required to administer an SBIR program. Each agency administers its own individual program within the SBA guidelines.

17. To obtain an SBIR award, LPT was required to submit a proposal to a specific Government agency, such as NASA. The agency evaluated the proposal on the basis of numerous factors, such as small business qualification, degree of innovation, technical merit, and future market potential. Businesses that receive awards or grants begin a three-phase program:

- Phase I is the startup phase. Awards of up to \$70,000 for approximately 6 months support exploration of the technical merit or feasibility of an idea or technology.
- Phase II awards of up to \$750,000, for as many as 2 years, expand Phase I results. During this time, the R&D work is performed and the developer evaluates commercialization

potential. Only Phase I award winners are considered for Phase II.

- Phase III is the period during which Phase II innovation moves from the laboratory into the marketplace. No SBIR funds support this phase. The small business must find funding in the private sector or other non-SBIR federal agency funding.

Awardees are required to enter into a contract with awarding agency that contains specific representations about the work to be performed, benchmarks and reporting requirements, and limitations restricting the use of SBIR funds to the intended purposes.

18. Defendants' efforts to defraud the Government occurred in connection with in excess of ten Government-funded research contracts. The contracts through which defendants defrauded the Government include, at a minimum, the following:

a. Army Phase I – This Phase I USAF contract (No. F08630-8-C-0066-P0001; Very Thin Film Rechargeable Battery) was funded for approximately \$60,438 through the SBIR program. Its purpose was to perform research and development on a new design of lithium battery that uses thin plastic films for the current collectors and a solventless polymer electrolyte. Although initially funded by the USAF, the contract was ultimately administered by the Army and was referred to internally at LPT as the Army Phase I contract.

b. Army Phase II – Funded by the Army (Contract No. DASG60-00-C-0018; Very Thin Film Rechargeable Battery), this Phase II SBIR contract was awarded to LPT for approximately \$749,148. The objective of the contract was to build upon the research done in Army Phase I and assess the utility of very thin film ionically conducting lithium polymer electrolytes and very thin film cathodes in mass manufactured, cost effective and practical batteries.

c. USAF Capacitor – Awarded to LPT by the USAF (Contract No. F33615-00-C-2064; ElectroChemical Capacitor), this Phase I SBIR contract was valued at approximately \$64,934. The objective of the contract was to perform research and development on a new design of electrochemical battery that yielded the power of a capacitor but the energy of a battery, creating a hybrid of the two.

d. BMDO Phase II – This Phase II SBIR contract was funded by the Ballistic Missile Defense Organization (Contract No. BMDO-F33615-00-C-2050; High Density Film Capacitor) for approximately \$749,304. The objective of the contract was to build upon the research done in Phase I to prove if blending polypropylene resin and PVDF resin would yield a capacitor resin that is dielectrically superior to its constituent parts. The research would potentially provide power for lasers in the “Star Wars” program.

e. MEMs Phase I – This Phase I SBIR was awarded to LPT by the USAF (Contract No. F33615-C-2048; MicroElectroMechanical (“MEMs”) Phase I) for approximately \$70,000. The objective of the contract was to perform research and development on a design of lithium battery that uses thin plastic films for the current collectors and a solventless polymer electrolyte.

f. MEMs Phase II – This Phase II SBIR was awarded to LPT to build upon the research done in Phase I and assess the utility of the very thin film ionically conducting lithium polymer electrolytes and very thin film anodes/cathodes in mass manufactured and cost effective batteries. The contract was funded by the USAF (Contract No. F33615-01-C-2122; MEMs Phase II) for approximately \$749,781.

g. NASA NRA – One of LPT’s few non-SBIR contracts, the objective of this Phase I award was to perform research and development on a design of lithium battery

that uses thin plastic films for the current collectors, a solventless polymer electrolyte, and a non-graphitic anode coating. It was awarded to LPT by NASA (NASA Contract No. NAS3-01189; NASA NRA Polymer Electrolytes) for approximately \$497,779.

h. NASA SEPU – The objective of this Phase I SBIR was to research and develop a power unit that incorporated components of a solar power system, battery and capacitor that could be embedded into the structural panel of a satellite. It was awarded to LPT by NASA (Contract No. NAS3-01190; Structurally Embedded Power Unit) for approximately \$70,000.

i. MDA Lithium Ion Batteries – Awarded by the Missile Defense Agency (“MDA,” formerly BMDO), this Phase I SBIR was awarded to LPT to research and develop a lithium battery that uses thin plastic films for the current collectors and a non-graphitic anode coating. The MDA contract (No. DASG60-02-P-0101; MDA High Capacity Lithium Ion Batteries) was valued at \$69,987 and funded with money provided by the Army.

j. Thermal Battery – This Phase I contract was awarded to LPT by the USAF (Contract No. F33615-02-M-2271; High Capacity Thermal Battery) for \$70,000. The objective of the contract was to develop a new thermal battery based on a high voltage chemistry that operates at lower temperatures than existing thermal batteries. The battery was to be lightweight, thermally stable, and capable of delivering twice the energy density of existing thermal batteries at significantly lower cost.

Defendants’ Schemed to Defraud the Government From Contract Solicitation Through Completion

19. LPT is a young company with no significant commercial business. To fund the company and keep it afloat, defendants developed an expertise in obtaining

Government funding.

20. Defendants developed a complex scheme designed to “game” the federal research system in a manner that assured maximum payments in exchange for the minimum amount of effort. Defendants accomplished this goal primarily by billing the Government for work that had already been done or was not performed.

21. When submitting contract proposals, defendants knowingly submitted false statements by relying on a mosaic of minor and major misrepresentations to bolster the strength of their proposals. Defendants misrepresented LPT’s capabilities, its facilities, and its intent to perform work under certain contracts. Defendants also falsely certified that the work being solicited was not related to and did not duplicate work performed or solicited in connection with other federal contracts. In fact, LPT frequently solicited and received research contracts that, at least in part, were related to or duplicated prior or ongoing work under other federal contracts.

22. Defendants’ misrepresentations during procurement fraudulently induced the Government to award research contracts to LPT.

23. Once LPT was awarded a federal contract under false pretenses, the defendants schemed to defraud the federal Government further. Defendants billed the Government for work performed under commercial contracts. They billed the Government for work performed by employees on other projects and frequently ‘cross-charged’ time spent on one federal contract to other federal contracts in order to maximize the payments received under each contract.

24. Defendants also fraudulently invoiced the Government multiple times for the same materials, equipment, supplies and overhead expenses. If such items were

legitimately attributable to one Government contract, defendants frequently billed the same items to the Government multiple times under different contracts funded by different agencies.

25. Defendants also fabricated time charges for defendant Munshi, who was frequently listed as the “principal investigator” on most of LPT’s federal contracts. Munshi did little actual work on any particular federal contract, but falsified time charges in order to obtain payment for services he did not render.

26. Defendants further defrauded the Government by the manner in which they reported performance under their federal contracts. Defendants often reported research results to the Government that LPT did not have the capability to produce. Such results were obtained from prior research done by defendant Munshi during previous employment, stolen from other companies or obtained from a subcontractor. When the work was obtained from a subcontractor, LPT passed off the research as its own, seeking to fulfill its contract fraudulently while bolstering the Government’s perceptions about LPT’s capabilities.

27. Under some contracts, defendants merely recycled portions of research and reports that had already been provided to and paid for by the Government. In such instances, defendant Munshi would use a word processor to cut-and-paste text and graphics from one LPT report that had been submitted to one Government agency to another report destined for a different Government agency. Because each individual agency administered its own SBIR program, defendants were able to submit without detection related and duplicate research under similar federal contracts with different agencies.

Fraud Under Army Phase I (USAF Contract No. F08630-8-C-0066-P0001)

28. Defendants fraudulently induced the Government to award the Army Phase I contract (USAF Contract No. F08630-8-C-0066-P0001) through a variety of misrepresentations contained in the contract proposal. Although some of the misrepresentations were minor and others were more significant, the pattern of deception renders LPT's entire proposal suspect. Had the Government known about the misrepresentations, LPT would not have been awarded the contract.

29. In January 1998, defendants falsely certified that LPT was incorporated and a "small business." LPT further represented that it was "founded" in 1992. However, the company was not incorporated until May 8, 1998.

30. LPT certified in its contract proposal that the company's address was 3610 Cresswell Court, Missouri City, TX 77459. This false address is actually defendant Munshi's home address. LPT attempted to influence Government reviewers into thinking that LPT was already a viable business entity at a time when its facility was under construction and months from being complete or operable.

31. Defendant Munshi certified that the company was a "socially and economically disadvantaged business." This status, by definition, would need to be linked to defendant Munshi's status as majority shareholder and as a "socially and economically disadvantaged" individual. Defendant Munshi did not qualify for the designation, but used it in order to obtain the contract.

32. Defendants represented that Dat Truong, a biomedical engineer, would assist in the experimental work. Truong was never an employee of LPT and did not work on the project. The false representation was designed to improve LPT's chances of being

awarded the contract.

33. Defendants falsely represented that LPT had “cooperative arrangements” that permitted it to use the laboratories and scientific equipment at the University of Houston and Polyhedron Laboratories.

34. Defendants falsely represented that LPT possessed a “Gamry Potentiostat with impedance measurement capabilities from 1 mHz to 5 KHz.” Such analytical equipment is extremely useful for research and development of electrochemical cells. However, LPT never owned this equipment.

35. On May 3, 1999, LPT submitted its final Phase I report under this contract. In it, LPT represented that its work was performed in a “dry room” that met certain low humidity requirements: “The entire processing and testing work was carried out in a dry-room (less than 1% relative humidity).” LPT knew this representation to be false. Its dry room never functioned below 1% relative humidity before November 14, 2000, and frequently exceeded that standard after that date. The reliability of LPT’s work under this contract is suspect because it was not performed under the conditions represented.

Fraud Under Army Phase II (Army Contract No. DASG60-00-C-0018)

36. Defendants fraudulently induced the Government to award the Army Phase II contract (Army Contract No. DASG60-00-C-0018) through a variety of misrepresentations contained in its July 12, 1999 contract proposal. Had the Government known about the misrepresentations, LPT would not have been awarded the contract.

37. Defendants represented that LPT successfully manufactured cells during Phase I of the contract. The proposal states, “In Phase I we built some preliminary but simple cells to demonstrate our thin film concept,” representing that the cells

“demonstrated excellent cycling efficiencies at C/10 and C discharge rates (C represent [sic] the Ah capacity of the cell).” LPT had never achieved such cycling efficiencies at the time the proposal was submitted.

38. Defendants falsely represented that several people would work on the project who never did. Defendants represented that Dr. Guoqiang Gao, a scientist, “is expected to join LPT once the program start [sic]” and stated that Dr. Mary Sukeshini “whom we would like to hire” was to be included on the project. Upon information and belief, defendants representations were false because they never intended to hire these individuals.

39. Defendants further misrepresented that Navor Hernandez, an LPT engineering technician, would staff the contract. Hernandez resigned his employment at LPT months before the Phase II proposal was submitted.

40. Defendants also misrepresented that defendant Munshi would be the “principal investigator” on this contract when it was known that Munshi would not spend significant time working on it.

41. Defendants also defrauded the Government in the manner by which they obtained full funding for this contract. Phase II of the contract was approved for limited funding by the Army through BMDO. Initial funding of \$250,000 was provided to LPT but the remaining \$499,000 was withheld contingent upon LPT obtaining matching funds of \$749,000 through cash, in-kind support or self-investment.

42. Defendants solicited such in-kind support from NRG Cells in Singapore and NT Centre for Energy Research at the Northern Territory University in Australia prior to December 2001. Defendants obtained an “in-kind” commitment letter from the two foreign

companies to secure the extra \$499,000 in contract funding. The foreign companies' support was, however, contingent on LPT providing them with certain kinds of working batteries. Unable to produce the required batteries, LPT did not fulfill its obligations to NRG Cells or the NT Center and, as a result, neither company provided any in-kind support.

43. Defendants falsely represented that LPT had received the promised support from NRG Cells and the NT Center and concealed from the Government the true facts of the situation. Had LPT told the Government that it did not receive the in-kind support as represented, the Government, upon information and belief, would never have provided LPT with the remainder of the contract funding.

44. Because Army Phase I actually was funded by the USAF, the Army's funding of Army Phase II presented defendants with ample opportunity to falsify monthly reports. Because Army contracting personnel were not intimately familiar with the performance and reporting on Phase I, defendants were able to submit monthly reports on Phase II that merely duplicated much of the monthly reporting that had already occurred during Phase I. Consequently, much of the performance reported by defendants during Army Phase II was false and fraudulent, representing activities that had not taken place or that had already been reported and billed to the Government.

45. LPT's final report on the Army Phase II contract was submitted on April 18, 2002 and reflects fraud throughout the performance of the contract.

46. While defendant Munshi conducted minuscule amounts of direct research on the contract, defendants falsely billed the Government as if Munshi had performed substantial work, thereby billing the Government for work not performed.

47. In the Final Phase II report, defendants stated: "We pursued this idea further in the program since we were able to make PVDF Membranes in thickness of 5-10 um and successfully used them in small flat cells and in large area wound cells." Defendants did not have the capability to produce such PVDF membranes, also known as separators, at their facility. In fact, Fazlil Coowar was paid by defendants to make the separators while working in Great Britain as an employee of AEA Technologies, secretly and without his employer's knowledge. Coowar was later hired by defendants to work at LPT.

48. The report also stated: "We also validated that thin film cells built from metallized plastic current collectors – again a first – can be cycled as good as those containing metal substrates for the electrodes." Defendants knew this to be false, having been unable to produce plastic cells that cycled the same as ordinary cells at the time the report was submitted.

49. Defendants also misrepresented the cycling testing that LPT performed on the cells. LPT stated: "Excellent life greater than 900 cycles were demonstrated at the C/2 rate discharge with only 30% loss in the original cell capacity." LPT did not achieve these results in the time period represented. LPT did not have the capability to perform this year-long test. The tests were performed by Coowar while employed Great Britain at AEA Technologies. Coowar stole the data and test results and provided them to LPT.

50. Defendants included Section 3.3.2 in their final report, entitled "Micro porous Thin Film PVDF." The section is fraudulent in its entirety because the work reported was not performed by LPT but by Coowar while living in Great Britain employed at AEA Technologies. Coowar pilfered the data for the tests and provided it to defendants Munshi and LPT for use in falsifying reports to the Government.

51. Defendants' final report also relies liberally on work performed under other Government contracts. Defendants falsely presented the research as if it had been fully performed under the current contract.

52. The information reported by defendants in section 3.4.2, entitled "Electrode Coating on Microcoater," is fraudulent. The work was previously performed by defendants for the Army and USAF under the Army Phase I (Contract No. F08630-98-C-0066-P0001), MEMs Phase I (Contract No. F33615-00-C-2048) and USAF Capacitor (Contract No. F33615-00-C-2064) contracts.

53. Defendants included scanning electron micrographs ("SEM") that are identical to the SEMs included in other LPT reports to the Government under the Army Phase I (Contract No. F08630-98-C-0066-P0001) and MEMs Phase I (Contract No. F33615-00-C-2048) contracts.

54. In the final report on the contract, defendants falsely included a discussion about and copies of the SEMs. LPT did not have the equipment necessary to produce such micrographs and did not obtain them in connection with the contract. Upon information and belief, defendant Munshi obtained the micrographs during periods of previous employment.

55. Defendants fraudulently described work in section 3.4.1, entitled "Raw Materials Processing for Composite Electrodes," that was previously billed to the Government under the Army Phase I contract (Contract No. F08630-98-C-0066-P0001).

56. Defendants falsely submitted section 3.4.6, entitled "Fabrication and Characterization of Thin Film Lithium Anodes." The work described was invoiced previously to the Government under MEMs Phase I (Contract No. F33615-00-C-2048), MEMs Phase II (Contract No. F33615-01-C-2122) and NASA NRA (Contract No. NAS3-

01189).

57. Section 3.7, "Cell Fabrication and Testing," of defendants' report is almost entirely taken from work previously performed for the USAF under MEMs Phase I (Contract No. F33615-00-C-2048).

58. Defendants also refer to work performed producing 9um micro porous PVDF and "Micro porous PVDF polymer membrane developed by Lithium Power." Although represented as LPT's work, these separators were produced in Great Britain by Coowar while he was employed at AEA Technologies.

59. Defendants also falsely reported on the development of PVDF Polymer Electrolyte. LPT was not able to obtain the substance directly and instead procured it through Coowar in Great Britain while he worked for AEA Technologies. AEA Technologies was unaware that Coowar was stealing its technology, trade secrets and materials and providing them to LPT.

60. A significant portion of the "Large Area Cells" referenced in the final report were made not at LPT, but in Great Britain by Coowar. Defendants submitted the cells to the Army, falsely representing that they had been manufactured by LPT.

61. Defendants discussion of Lithium Ion Polymer Cells is false because the cell was not a polymer but a battery which used a different cathode chemical material called "LN101." The LN101 material could not be obtained directly by LPT. Instead, the LN101 was supplied and the battery was made by Coowar in Great Britain while employed at AEA Technologies.

62. Some of the "Cycle Life" data and rate capacity tests presented in the final report are fabricated or obtained from other sources. Some of the tests were never performed at LPT.

63. Section 3.8.2 of the final report, entitled "Cost," was previously reported and invoiced to the USAF and Army under MEMs Phase I (Contract No. F33615-00-C-2048) and Army Phase I (Contract No. F08630-98-C-0066-P0001).

64. In the report, defendants boasted that they provided 30 batteries to the Government when the contract only called for 25. However, defendants failed to disclose that 50% of the batteries delivered under the contract were fraudulently made in Great Britain at AEA Technologies through the coordinated deception of defendant Munshi and Coowar.

65. The final report also contained false testing and performance data that was not performed at LPT, but was generated by Coowar when employed by AEA Technologies.

66. Defendants' fraudulent conduct in connection with the Army Phase II contract was extensive and damaging to the Government. Every instance of duplicative effort, contract overlap and work not performed that is discussed above was billed falsely to the Government as if it originally was being performed under this contract.

Fraud Under USAF Capacitor (USAF Contract No. F33615-00-C-2064)

67. Defendants fraudulently induced the Government to award the USAF Capacitor (USAF Contract No. F33615-00-C-2064) Phase II contract through a variety of misrepresentations contained in the contract proposal that was submitted to the Government. Had the Government known about the misrepresentations, LPT would not have been awarded the contract._

68. Defendants misrepresented that they had cooperative arrangements with the University of Houston, Polyhedron Laboratories, or T/J Technologies regarding the use of

their labs and equipment. They never did.

69. Defendants represented that LPT possessed a Gamry Potentiostat with impedance measurement capabilities from 1 mHz to 5 kHz. Such an instrument is crucial to the proper testing of cells, but LPT never had one.

70. Defendants misrepresented that defendant Munshi would act as “principal investigator” and conduct a significant portion of the research on this contract. Defendants knew at the time that Munshi would perform minuscule “hands-on” or direct research.

71. Section 4.5.3 of defendants’ final report, entitled “Electrochemical Characterization,” is false or fraudulent because it relies on tests performed with a Gamry Potentiostat that never existed at LPT.

72. Although defendant Munshi conducted minuscule “hands-on” or direct research for this contract, despite his contractual status as its “principal investigator,” Munshi falsely billed the Government for significant hours on the project that he did not work.

Fraud Under the BMDO High Energy (Contract No. BMDO-F33615-00-C-2050)

73. Defendants fraudulently induced the Government to award the BMDO High Energy (BMDO Contract No. BMDO-F33615-00-C-2050) Phase II contract through a variety of misrepresentations contained in LPT’s October 5, 1999 contract proposal. Had the Government known about the misrepresentations, LPT would not have been awarded the contract.

74. Defendants misrepresented that Navor Hernandez, an LPT engineering technician, would staff the contract. Hernandez resigned his employment at LPT in May 1999, months before the contract proposal was submitted.

75. Defendants falsely represented that LPT had “cooperative arrangements” with the University of Houston, Polyhedron Laboratories, Dixie Testing and SCR Laboratories regarding the use of their laboratories and equipment. LPT never had such arrangements with any of these entities.

76. Defendants falsely represented that LPT possessed a Gamry Potentiostat and Arbin 20-channel potentiostat/battery cycler. LPT does not own such equipment.

77. Defendants misrepresented that defendant Munshi would act as “principal investigator” and conduct a significant portion of the research on this contract. Defendants knew at the time that Munshi would perform minuscule “hands-on” or direct research for this contract.

78. Although defendant Munshi conducted minuscule “hands-on” or direct research for this contract, despite his contractual status as its “principal investigator,” Munshi falsely billed the Government for significant hours on the project that he did not work.

Fraud Under the MEMs Phase I (USAF Contract No. F33615-00-C-2048)

79. Defendants fraudulently induced the Government to award the MEMs Phase I contract (USAF Contract No. F33615-00-C-2048) through a variety of misrepresentations contained in LPT’s contract proposal. Had the Government known about the misrepresentations, LPT would not have been awarded the contract.

80. Defendants falsely represented that defendant Munshi, as “principal investigator” under the contract, would conduct significant “hands-on” or direct research. At the time, defendants knew that Munshi would spend minuscule amounts of time on the contract.

81. Much of the research represented as being done under this contract was actually performed in connection with other Government contracts. LPT's invoices for such duplicate work under this contract represent false and fraudulent claims for work that was not performed.

82. In LPT's Phase I final report, defendants stated, "Our objective in Phase II will be to reduce the component thickness to about 2 to 5 μ (using either slurry coating methods or roll-to-roll continuous vacuum deposition techniques) and process electrodes and electrolytes in long lengths sufficient to wind into full-size batteries of large component surface area." The stated objective is nearly identical to the objective of the Army Phase I (Army Contract No. F08630-8-C-0066-P0001) and Army Phase II (Army Contract No. DASG60-00-C-0018) contracts.

83. Work reported in the final report on substrate development is nearly identical to research reported under the Army Phase II contract.

84. Research discussing the micro-coater development is similar to research for which the Government was previously invoiced under the Army Phase I and USAF Capacitor contracts.

85. Research discussed in final report Section 3.3.3, entitled "Lithium Anode Development," is duplicative of research invoiced under the Army Phase II contract.

86. Research reported in the final report Section 3.3.4 on "Physical Characterization of Electrodes" also was conducted and invoiced to the Government under the Army Phase II contract. The SEMs presented previously appeared in research prepared under the Army Phase I and Army Phase II contracts.

87. LPT did not have the equipment necessary to produce such micrographs and did not obtain them in connection with the contract. Upon information and belief,

defendant Munshi obtained the SEMs during periods of previous employment and falsely represented that they had been obtained in connection with work under this contract.

88. Final report Section 3.4, entitled “Polymer Electrolyte Design and Development,” duplicates research for which the Government also paid under the Army Phase II contract.

89. Portions of the research reported in Section 3.5, “Cell Fabrication and Testing,” were performed previously in connection with the Army Phase II contract.

90. Section 3.6, entitled “Design, Cost and Production Models,” was also reported to the Government under the prior Army Phase I and Army Phase II contracts.

91. The conclusions reached in the final report on this contract are based on previous and concurrent research for which the Government had already paid under the Army Phase I and Phase II contracts.

92. Despite his contractual status as its “principal investigator,” defendant Munshi conducted minuscule “hands-on” or direct research for this contract. However, defendants falsely invoiced the Government for Munshi’s time, reporting that Munshi spent far more hours on the project that he actually did.

Fraud Under the MEMs Phase II (USAF Contract No. F33615-01-C-2122)

93. Defendants fraudulently induced the Government to award the MEMs Phase II contract (USAF Contract No. F33615-01-C-2122) through a variety of misrepresentations contained in the contract proposal that was submitted to the Government. Had the Government known about the misrepresentations, LPT would not have been awarded the contract.

94. Defendants falsely represented that defendant Munshi would act as “principal

investigator” on this contract, when they knew that Munshi would spend minuscule amounts of time working on the contract.

95. In the “key personnel” section of the MEMS Phase II proposal, defendants identified Dr. Like Xie, a Ph.D. in Materials Science and Engineering, as someone who “has been interviewed for a senior scientist position and is expected to join LPT once the program start [sic].” Dr. Xie never accepted a position with LPT, and defendants never had any intention of having Dr. Xie work on this contract.

96. As discussed above, the USAF MEMs Phase I contract was duplicative of work performed under other Government contracts. As a result, the follow-on MEMs Phase II contract was built on a foundation of contract duplication.

97. The MEMs Phase II contract also overlapped significantly with research performed under the Army Phase II contract. For instance, in a discussion of the MEMs Phase I results, defendants copied almost verbatim the language used in discussing the Army Phase I results that was included in the Army Phase II documentation.

98. Defendants described the technical objectives of the Phase II contract in terms similar to, and sometimes identical to, those used in the Army Phase II proposal.

99. Both the MEMs and Army Phase II proposals include a section 4.3 entitled “Technical Superiority.” Within those sections, defendants included the identical text to describe how the Phase I and Phase II research was related. Duplication in these sections demonstrates the identical intent of the two, supposedly unrelated, contracts.

100. Further evidence of the significant overlap between the MEMs Phase II and Army Phase II contracts can be found in the identical manner in which each Phase II proposal discusses background information relating to the proposed research.

101. Section 7.0 of the MEMs Phase II and Army Phase II proposals is entitled

“Phase II Work Plan.” There is significant duplication between the two work plans, demonstrating the overlap and duplication between the two contracts.

102. The “Related Work” sections in both the MEMs Phase II and Army Phase II proposals is nearly identical. The MEMs proposal falsely and deceptively omits any identification and description of the essentially identical “research” invoiced to the Government under the Army Phase I and Army Phase II contracts.

103. Defendants use nearly identical language to describe the technological significance of the MEMs Phase II and Army Phase II contracts.

104. The MEMs Phase II contract proposal’s discussion of Phase I results, section 5.2, entitled “Thin Film Electrode Development,” recounts various processes which LPT used in completing Phase I of the contract by using nearly identical information that was provided to the Government in connection the Army Phase I, USAF MEMs Phase I and USAF Capacitor contracts.

105. The significant overlap between this contract and other Government-funded contracts performed by LPT demonstrates that defendants knowingly defrauded the Government by proposing duplicate work that enabled defendants to recycle research performed for one agency to contracts obtained from another agency.

106. After the MEMs Phase II contract was awarded to LPT, defendants met their obligation to file monthly status reports, including in LPT’s monthly reports research results identical to those that previously had been reported under the Army Phase II contract.

107. Defendants’ monthly progress reports also borrowed heavily from monthly reports submitted in connection with the NASA NRA contract.

108. In addition to the fraudulent double-billing that took place in connection with the duplicative research on this contract, defendants also billed the Government for work

that was not performed in other ways.

109. Despite his contractual status as its “principal investigator,” defendant Munshi conducted minuscule “hands-on” or direct research for this contract. However, defendants falsely invoiced the Government for Munshi’s time, reporting that Munshi spent far more hours on the project that he actually did.

110. In monthly report no. 11, defendants presented research as LPT’s own in a chart entitled, “Capacity Chart FC38d,” that was actually from a test performed and battery manufactured in Great Britain while Coowar was employed by AEA Technologies.

111. In monthly report no. 14, defendants provided charts on “LN 101” that depict data from cells supposedly produced by LPT. However, the research was actually done on cathode material made by Coowar in Great Britain while employed at AEA Technologies. LPT was not able to find a supplier for the LN 101 material that it supposedly was able to provide to the Government. The LN 101 contained in the cells provided to the Government was stolen by Coowar from his former employer.

Fraud Under NASA NRA (NASA Contract No. NAS3-01189)

112. Defendants fraudulently induced the Government to award the NASA NRA contract (Contract No. NAS3-01189) through a variety of misrepresentations contained in the contract proposal that was submitted to the Government. Had the Government known about the misrepresentations, LPT would not have been awarded the contract.

113. Defendants misrepresented that defendant Munshi would act as “principal investigator” and conduct a significant portion of the research on this contract. Defendants knew at the time that Munshi would perform minuscule “hands-on” or direct research.

114. Defendants falsely certified that work under the NASA NRA contract was not

related to or duplicative of work performed under other government research contracts.

115. LPT's proposal for work under the NASA NRA contract (Contract No. NAS3-01189) duplicates work performed under the USAF MEMs contract and the Army Phase II contract.

116. In the NASA NRA proposal, defendants provide background information relating to the proposed research that is identical to background information found in proposals for the Army Phase I and MEMs Phase II contracts.

117. Defendants describe the work LPT intends to do using substantively similar descriptions of its work under other contracts. In particular, the work plan in the NASA NRA contract is strikingly similar to the work plan in the USAF MEMs Phase II and Army Phase II contracts.

118. Defendants' proposal for the NASA NRA further uses identical language concerning substrate development and materials characterization that is also found in the Army Phase II and MEMs Phase II contracts.

119. Defendants' description of the tasks that will take place during the first year of the contract is substantively identical to the schedule identified under the Army Phase II and MEMs Phase II contracts.

120. In addition to duplicating work for which the Government was already billed through the NASA NRA contract, defendants further billed the Government for work not performed.

121. Although defendant Munshi conducted minuscule "hands-on" or direct research for this contract, despite his designation as its "principal investigator," defendants falsely billed the Government as if Munshi performed the majority of the research.

122. Defendants further defrauded the Government by submitting false monthly

reports describing work that was supposedly performed on the NASA NRA contract. Although defendants invoiced the Government for such work, the work was never performed. Instead, defendants copied research results obtained in performing the USAF MEMs Phase I and II and Army Phase I and II contracts and falsely reported them as if the results were original research under the NASA NRA contract.

Fraud Under The NASA SEPU (NASA Contract No. NAS3-01190)

123. Defendants fraudulently induced the Government to award the NASA SEPU contract (Contract No. NAS3-01190) through a variety of misrepresentations contained in the contract proposal that was submitted to the Government. Had the Government known about the misrepresentations, LPT would not have been awarded the contract.

124. Defendants falsely represented that defendant Munshi would act as “principal investigator” on this contract, when they knew that Munshi would spend minuscule amounts of time working on the contract.

125. In the “key personnel” section of the contract proposal, defendants represented that “Dr. A.M. Kannan, a post-doctoral fellow at the University of Texas, Austin will join Lithium Power shortly as a Senior Scientist and be involved in the selection, design and development of solar cell technology and battery development.” Dr. Kannan was never employed by LPT and never accepted a position with the company. Defendants included Kannan’s name to add legitimacy to LPT’s proposal because LPT lacked a knowledgeable scientist with experience in photovoltaic and solar cells.

126. In the Phase I proposal, defendant Munshi certified that “[n]o part of this work will be subcontracted to an external source and no consultants will be assigned to this Phase I program.” After the contract was awarded, Munshi immediately subcontracted with

SpaceWorks, Inc. of Carefree, Arizona to perform most of the research.

127. When reporting progress under the contract, LPT never made mention of SpaceWorks' involvement and falsely discussed contract performance as if all work had been performed by LPT directly. In LPT's final report on the SEPU contract, defendants falsely stated that "[t]his Phase I SBIR program was conducted by" LPT.

128. Because most of the work was performed by SpaceWorks but reported as LPT's own, defendants falsely billed the Government for time expended as if Munshi and other employees had worked on the contract directly. The result is that defendants billed the Government for time that was not actually incurred on the project.

129. In the SEPU final report, defendants reported contract results, at least in part, by borrowing research conducted by LPT employee Dr. Jonathan Masere under the OSD contract (Army Contract No. DAAH01-02-C-R117).

Fraud Under MDA High Capacity (MDA/Army Contract No. DASG60-02-P-0101)

130. Defendants fraudulently induced the Government to award the MDA High Capacity contract (MDA/Army Contract No. DASG60-02-P-0101) through a variety of misrepresentations contained in the contract proposal that was submitted to the Government. Had the Government known about the misrepresentations, LPT would not have been awarded the contract.

131. Defendants misrepresented that defendant Munshi would act as "principal investigator" and conduct a significant portion of the research on this contract. Defendants knew at the time that Munshi would perform minuscule "hands-on" or direct research.

132. Defendants falsely certified that work under the NASA NRA contract was not related to or duplicative of work performed under other government research contracts.

133. Defendants' proposal for the MDA High Capacity contract makes clear that

the proposed work is largely identical to work performed by LPT and paid for by the Government under other contracts. Portions of the proposals submitted are identical to portions of the proposals that defendants submitted in connection with the NASA NRA, Army Phase I, MEMs Phase I, and MEMs Phase II contracts.

134. Defendants falsely represented that there was no prior, current, or pending contract for similar work. In reality, the research proposed for the MDA High Capacity contract had, with a few minor deviations, already been performed under portions of Army Phase I, Army Phase II, MEMs Phase I and MEMs Phase II contracts.

135. Although defendant Munshi conducted minuscule “hands-on” or direct research for this contract, despite his designation as its “principal investigator,” defendants falsely billed the Government as if Munshi performed the majority of the research.

Fraud Under Thermal Battery (USAF Contract No. F33615-02-M-2271)

136. Defendants fraudulently induced the Government to award the Thermal Battery contract (USAF Contract No. F33615-02-M-2271) through a variety of misrepresentations contained in its January 15, 2002 contract proposal. Had the Government known about the misrepresentations, LPT would not have been awarded the contract.

137. Defendants falsely represented that defendant Munshi would act as “principal investigator” on this contract, when they knew that Munshi would spend minuscule amounts of time working on the contract.

138. Defendants falsely represented that LPT had “cooperative arrangements” that permitted it to use the laboratories and scientific equipment at the University of Houston and Polyhedron Laboratories.

139. Defendants falsely represented that LPT possessed a variety of equipment, including a Gamry Potentiostat, when defendants knew that many of the items identified were never owned by and never existed at LPT. The fabricated equipment list was intended to improve the chances that LPT's contract proposal would be accepted.

140. Defendants also falsely represented to the Government that the majority of LPT's funding was from private sources, apparently attempting to hide the fact that LPT's finances are wholly dependent on obtaining a continuing stream of Government funding.

141. Although defendant Munshi conducted minuscule "hands-on" or direct research for this contract despite his designation as its "principal investigator," Longhi alleges upon information and belief that defendants falsely billed the Government as if Munshi performed the majority of the research.

Defendants' Wrongdoing Infected Virtually Every Proposal Submitted to and Contract Performed for the Government

142. Upon information and belief, relator Longhi alleges that the fraud described in this complaint is merely a small portion of defendants' False Claims Act violations.

143. Defendants also submitted false and fraudulent statements to the Government in connection with many contract proposals that did not result in contract awards or Government funding. Although the Government did not award defendants any money in connection with such false claims, defendants' attempted to obtain contract approvals and payments by submitting false and misleading contract proposals violated the False Claims Act.

144. The examples described in this complaint constitute specific instances of False Claims Act violations known to relator Longhi. Based on his knowledge of defendants' practices and defendants' indiscriminate conduct, Longhi alleges upon

information and belief that defendants committed fraud in connection with virtually every contract that was awarded to LPT by the Government.

145. For instance, LPT's OSD contract (Contract No. DAAH01-02-C-R117; Battery for Long Term Storage) was a \$70,000 Phase I SBIR funded by the Army to research the various battery chemistries and the companies that manufactured them to identify the best available commercial battery. Although defendant Munshi was not the principal investigator on the contract, he was intimately involved in the contract's administration. Based on his knowledge of how Munshi fraudulently inflated invoices submitted for Government contracts, Longhi alleges upon information and belief that fraud is likely to have occurred in connection with the OSD contract.

146. LPT obtained two other Government contracts on which it is highly likely, based upon information and belief and Longhi's familiarity with defendants' contracting practices, that defendants committed fraud and continue to commit fraud. Those contracts include the Robust Optical Limiter, a Phase I SBIR awarded to LPT by the Army (Contract No. DASG60-02-P-0013) and the Organic Electrolytes for Thermal Batteries, a Phase I SBIR awarded to LPT by MDA.

147. Upon information and belief, Longhi alleges that defendants routinely billed the Government for excessive amounts relating to time supposedly spent on contracts by defendant Munshi. Based on his personal knowledge of Munshi's work habits and LPT's research efforts, Longhi alleges that Munshi rarely, if ever, performed significant hands-on research in connection with any Government contract. Consequently, Longhi alleges that most, if not all, of the research efforts personally attributed to defendant Munshi constitute false claims.

148. Based on conversations with defendant Munshi, relator Longhi further alleges

that defendants submitted false and duplicative claims to the Government for materials, equipment and supplies used in connection with Government-funded contracts. Materials, equipment and supplies purchased for use in connection with a specific Government or commercial project were routinely invoiced in full to the Government under different contracts, thereby causing the Government to pay for the same materials, equipment and supplies multiple times.

149. Based on conversations with defendant Munshi, relator Longhi further alleges that defendants submitted false and duplicative claims to the Government for items included within LPT's overhead. Upon information and belief, Longhi alleges that overhead charges incurred by LPT for maintenance, rent, utilities, and administrative expenses were routinely invoiced the Government under different contracts in sums that, when aggregated, exceeded LPT's actual expenses. As a result, defendants caused Government to pay for the same overhead expenses multiple times.

**Fraud Possibly Committed Under Additional Contracts
Obtained by LPT after the Initial Complaint Was Filed**

150. In addition to the contracts and proposals identified in the preceding paragraphs, Longhi alleges upon information and belief that defendants may have defrauded the government in connection with work performed on an additional ten contracts. Although defendants' efforts on these contracts occurred largely or entirely after Longhi's employment with LPT ended, Longhi has, with respect to each additional contract listed below, analyzed publicly-available information and, applying his prior knowledge of defendants' wrongdoing, concluded that defendants likely defrauded the government under these additional contracts. In particular, Longhi determined that the description of the contract's objective and work to be performed directly or substantially overlaps with

research that defendants' performed for the government or for which the government paid LPT under one or more other contracts. The additional contracts include:

a. Thin Film Power Cells Phase I – This Phase I contract was awarded to LPT by the MDA for approximately \$69, 970 (Contract No. HQ0060-3C-0-096; Thin Film Power Cells for High Altitude Airships). The objective of this Phase I program is to design and develop for high altitude airship (HAA) flexible, high energy lithium ion power source technologies that are versatile, simplistic, low mass, lightweight, long lasting and cost effective. Longhi alleges upon information and belief that the contract may overlap in whole or part with the following contracts: Army Phase I (F08630-8-C-0066-P001), Army Phase II (DASG60-C-0018), MEMS Phase I (F33615-C-2048), MEMS Phase II (F33615-01-C-2122), NASA NRA (NAS3-01189), MDA High Capacity Lithium Ion (DASG60-02-P-001) and NASA SEPU (NAS3-01190).

b. Thin Film Power Cells Phase I – MDA awarded LPT a \$749,500 Phase II contract for LPT to continue its work on Thin Film Power Cells for High Altitude Airships (Contract No. HQ0006-04-C-7095). The objective of this contract is to optimize the chemistry, components and packaging that result in a durable battery for high altitudes with specific energies greater than 215 WH/kg and cycle life exceeding 500 cycles at 80-90% depth-of-discharge. Longhi alleges upon information and belief that the contract may overlap in whole or part with the following contracts: Army Phase I (F08630-8-C-0066-P001), Army Phase II (DASG60-C-0018), MEMS Phase I (F33615-C-2048), MEMS Phase II (F33615-01-C-2122), NASA NRA (NAS3-01189), MDA High Capacity Lithium Ion (DASG60-02-P-001) and NASA SEPU (NAS3-01190).

c. New Polymer Dielectrics – Funded by the Office of Secretary of Defense (OSD), this Phase I SBIR was awarded to LPT for approximately \$99,988

(Contract No. F33615-03-M-2310; New Polymer Dielectrics for Capacitors). Administered by the Air Force, the objective of the Phase I is to develop a hybrid copolymer dielectric material based on polyvinylidene fluoride (PVDF) in a solid-solution combination with polypropylene that provides excellent insulator properties in an intrinsic cell design that delivers at least 45j/cc and a demonstration of its feasibility in an initial prototype cell that delivers at least 10 j/cc at a projected cost per unit performance well below present cost. Longhi alleges upon information and belief that the contract may overlap in whole or part with the following contracts: High Energy Density Metallized Film Capacitor – Phase I (F33615-99-C-2959) and High Energy Density Metallized Film Capacitor – Phase II (F33615-00-C-2050). The contract may also overlap with a \$5.2 million contract awarded by the National Institute of Standards and Technology (NIST) through its Advanced Technology Program (ATP) to the Advanced Film Capacitor Consortium, which is led by LPT.

d. Organic Electrolytes – This Phase I SBIR contract was awarded to LPT by the MDA for approximately \$69,990 (Contract No. HQ0006-03-C-0015; Organic Electrolytes for Re-Usable, High Performance Thermal Batteries). The objective of the contract is to verify that the proposed electrolytes in lithium-metal batteries will increase the energy density, increase operational life and reduce battery costs. Longhi alleges upon information and belief that the contract may overlap in whole or part with the following contracts: High Capacity Thermal Battery – USAF (F33615-02-M-2271) and New Cathode Materials for High Capacity Thermal Batteries – MDA (HQ0060-3C-0-0095).

e. Organic Additives – Funded by the Department of Energy, this Phase I SBIR contract was awarded to LPT during 2005 (Organic Additives as Redox Shuttles for Overcharge Protection of Lithium Ion Batteries). The objective of the contract is to develop

novel organic compounds for overcharge protection in lithium ion batteries to enhance the safety of large lithium ion batteries during overcharge conditions. Longhi alleges upon information and belief that the contract may overlap in whole or part with research published in 1995 by defendant Munshi in the book entitled "Handbook of Solid State Batteries & Capacitors" and also appears to overlap, at least in part, with the following contracts: Army Phase I (F08630-8-C-0066-P001), Army Phase II (DASG60-C-0018), MEMS Phase I (F33615-C-2048), MEMS Phase II (F33615-01-C-2122), NASA NRA (NAS3-01189), MDA High Capacity Lithium Ion (DASG60-02-P-001) and NASA SEPU (NAS3-01190).

f. New Cathode Materials – LPT was awarded this Phase I contract for approximately \$69,970 by the MDA (Contract No. HQ0060-3C-0-0095; New Cathode Materials for High Capacity Thermal Batteries) The objective of the contract is to perform research and development on new designs of cathode materials for lithium thermal batteries, which when incorporated in cells, yield very high levels of specific power and specific energy, high reliability, and low cost. Longhi alleges upon information and belief that the contract may overlap in whole or part with the following contracts: High Capacity Thermal Battery – USAF (F33615-02-M-2271) and Organic Additives – DOE.

g. Carbon Fiber Anodes Phase I – Funded by NASA, this Phase I contract (Contract No. 02-S4.07-8619; Sn-SnSb Filled Carbon Fiber Anodes for High Energy Density Lithium Ion Batteries: Phase I) is intended to develop an anode that exploits the excellent cycle life of carbon fiber and the high gravimetric and volumetric capacity of the tin based system in a lithium ion battery. Longhi alleges upon information and belief that the contract may overlap in whole or part with research published in 1995 by defendant Munshi in the book entitled "Handbook of Solid State Batteries & Capacitors"

and also appears to overlap, at least in part, with the following contracts: Army Phase I (F08630-8-C-0066-P001), Army Phase II (DASG60-C-0018), MEMS Phase I (F33615-C-2048), MEMS Phase II (F33615-01-C-2122), NASA NRA (NAS3-01189), MDA High Capacity Lithium Ion (DASG60-02-P-001) and NASA SEPU (NAS3-01190).

h. Carbon Fiber Anodes Phase II – This Phase II contract (Contract No. NAS9-03038; Sn-SnSb Filled Carbon Fiber Anodes for High Energy Density Lithium Ion Batteries: Phase II) was funded by NASA to further optimize the modified carbon fiber anode to a level where a practical gravimetric capacity of 500-700 mAh/g can be delivered. Longhi alleges upon information and belief that the contract may overlap in whole or part with research published in 1995 by defendant Munshi in the book entitled "Handbook of Solid State Batteries & Capacitors" and also appears to overlap, at least in part, with the following contracts: Army Phase I (F08630-8-C-0066-P001), Army Phase II (DASG60-C-0018), MEMS Phase I (F33615-C-2048), MEMS Phase II (F33615-01-C-2122), NASA NRA (NAS3-01189), MDA High Capacity Lithium Ion (DASG60-02-P-001) and NASA SEPU (NAS3-01190).

i. Nanocomposite Cathodes — Funded by NASA, the objective of this Phase I SBIR contract (04-1-S4.04-7759 GRC; Carbon-Coated CFx Nanocomposite Cathodes for High Rate Lithium Primary Batteries) is to create a novel electrode material that exploits the high gravimetric and volumetric capacity of the carbon monofluoride nanoparticles with high rate capability coated by an electronically conductive thin-layer of carbon. Longhi alleges upon information and belief that the contract may overlap in whole or part with the following contracts: Army Phase I (F08630-8-C-0066-P001), Army Phase II (DASG60-C-0018), MEMS Phase I (F33615-C-2048), MEMS Phase II (F33615-01-C-2122)

NASA NRA (NAS3-01189), MDA High Capacity Lithium Ion (DASG60-02-P-001 NASA SEPU (NAS3-01190), Carbon Fiber Anodes Phase I (2-S4.07-8619) and Carbon Fiber Anodes Phase II (NAS9-03038).

j. Battery Optimized – Funded by OSD and administered by the Army, this Phase II was awarded to LPT for approximately \$749,148 (Contract No. DAAH01-03-C-R189; Battery Optimized for Long Term Storage and Intermittent Use). The objective of this contract is to perform research and development on primary and secondary low voltage solid-state lithium batteries incorporating very high capacity cathodes, such as CFx and polyorganosulfides on metallized plastic film substrates, in tandem with a room temperature polymer electrolyte that yields energy densities between 250 to 400 Wh/kg, a shelf-life of about 20 years, excellent reliability, and at a relatively low cost. Longhi alleges upon information and belief that the contract may overlap in whole or part with the following contracts: Army Phase I (F08630-8-C-0066-P001), Army Phase II (DASG60-C-0018), MEMS Phase I (F33615-C-2048), MEMS Phase II (F33615-01-C-2122), NASA NRA (NAS3-01189), MDA High Capacity Lithium Ion (DASG60-02-P-001), NASA SEPU (NAS3-01190), Carbon Fiber Anodes Phase I (02-S4.07-8619), Carbon Fiber Anodes Phase II (NAS9-03038), Nanocomposite Cathodes (04-1-S4.04-7759 GRC), High Capacity Thermal Battery – USAF (F33615-02-M-2271); Organic Additives – DOE and New Cathode Materials (HQ0060-3C-0-0095).

151. Had the United States been aware of the conduct alleged in this complaint, it would not have awarded contracts to LPT.

152. Had the United States been aware of the conduct alleged in this complaint, it would have paid neither for the claims submitted by defendants nor for the services which LPT was contracted to provide.

153. Because the Government would not have awarded the contracts or paid the claims, defendants concealed their illegal activities from the Government as a means of defrauding the Government into paying for claims and services it otherwise would not have paid.

154. At all times relevant to this complaint, it was a violation of federal law to submit, or cause to submit, a false or fraudulent claim for payment or approval by the Government.

155. At all times relevant to this complaint, it was a violation of federal law to make, use, or cause to make or use, a false record or statement to get a false or fraudulent claim paid or approved by the Government.

156. At all times relevant to this complaint, it was a violation of federal law to conspire to get false and fraudulent claims allowed or paid by the United States.

COUNTS ONE AND TWO
False Claims Act
31 U.S.C. § 3729(a)(1) and (a)(2)

157. Relator realleges and incorporates by reference the allegations contained in Paragraphs 1 through 156 of this amended complaint.

158. This is a claim for treble damages and forfeitures under the False Claims Act, 31 U.S.C. §§ 3729, *et seq.*, as amended.

159. By virtue of the acts described above, defendants knowingly presented, or caused to be presented, to the United States Government false or fraudulent claims for payment or approval.

160. By virtue of the acts described above, defendants knowingly made, used or caused to be made or used false records or statements to get a false or fraudulent claim

paid or approved by the United States Government.

161. By virtue of the acts described above, defendants knowingly concealed the existence of its improper conduct from the United States Government in order to induce contract awards and payment of their false or fraudulent claims.

162. The United States, unaware of defendants' wrongdoing or the falsity of the records, statements or claims made by the defendant, awarded contracts and paid claims that would not otherwise have been allowed.

163. By reason of these approvals and payments, the United States has been damaged, and continues to be damaged, in substantial amount.

WHEREFORE, relator requests that judgment be entered in favor of the United States and relator against defendant, ordering that:

a. defendants cease and desist from violating the False Claims Act, 31 U.S.C. § 3729, *et seq.*;

b. defendants pay an amount equal to three times the amount of damages the United States has sustained because of defendants' actions, plus a civil penalty of not less than \$5,500, and not more than \$11,000 for each violation of 31 U.S.C. § 3729;

c. relator be awarded the maximum amount allowed pursuant to 31 U.S.C. § 3730(d);

d. relator be awarded all costs of this action, including attorneys' fees and costs pursuant to 31 U.S.C. § 3730(d); and

e. the United States and relator recover such other relief as the Court deems just and proper.

JURY DEMAND

Pursuant to Fed. R. Civ. P. 38(b), Longhi hereby demands a trial by jury.



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ATTORNEY IN CHARGE FOR *QUI TAM*
RELATOR ALFRED J. LONGHI, JR.

November 3, 2005

CERTIFICATE OF SERVICE

I certify that on November 3, 2005, Relator's First Amended Complaint was filed electronically and service accomplished automatically through the Notice of Electronic Filing issued by the Court's Electronic Case Filing (ECF) System to the following counsel of record:

Andrew A. Bobb
andrew.bobb@usdoj.gov


Mitchell R. Kreindler